



PATENT
File No. 14073-E

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)	
Jian Zhi Hu, et al.)	
)	Art Unit:
Serial No. 10/639,828)	
Filed: 08/12/2003)	Examiner:
)	
For: ADVANCED SLOW-MAGIC ANGLE)	
SPINNING PROBE FOR MAGNETIC)	
RESONANCE IMAGING AND)	Our Ref. No: 14073-E
SPECTROSCOPY)	
)	Date: October 9, 2003

INFORMATION DISCLOSURE STATEMENT

Mailstop PATENT APPLICATION
Commissioner for Patents
PO Box 1450
Alexandria, VA 2213-1450

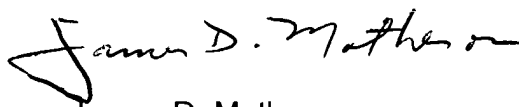
Dear Sir:

Pursuant to the duty of disclosure under 37 CFR §§ 1.56, 1.97, and 1.98, the documents listed on the attached Form(s) PTO-1499 are being brought to the attention of the Examiner in charge of the above-identified application.

The Examiner is respectfully requested to initial the space adjacent each document entry on the Form(s) PTO-1449, and to return a copy of the initialed Form(s) PTO-1449 to confirm that the documents have been considered and have been officially made of record in this application.

If the Examiner has any questions or wishes to discuss this application, the Examiner is invited to telephone the undersigned representative at the number set forth below. This IDS is either being submitted within the 3 month deadline or prior to the 1st Office Action, therefore we don't believe there are any fees required. However, if any fees are required for consideration of this paper are hereby authorized to be charged to our Deposit Account No. 02-1275.

Respectfully submitted,



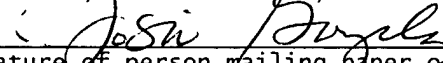
James D. Matheson
Reg. No. 54,569

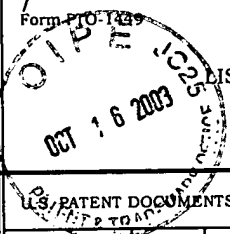
James D. Matheson (K1-53)
Intellectual Property Services
Battelle Memorial Institute
Pacific Northwest Laboratories
P.O. Box 999
Richland, WA 99352
(509) 372-3782

M:A:FILENO.IDS

First Class Certificate of Deposit

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date set forth below.

 10/14/03
Signature of person mailing paper or fee Date

Form PTO-1439 		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 14073-E		SERIAL NO. 10/639,828	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT Jian Zhi Hu, et al.		FILING DATE 8/12/2003	
U.S. PATENT DOCUMENTS				GROUP:			
*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation Yes No
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)							
	A	Ericsson A, Weis J, Hemmingsson A, Wikstrom M, and Sperber GO, Measurements of magnetic-field variations in the human brain using a 3D-FT multiple gradient-echo technique. Magn. Reson Med. 1995; 33: 171-177.					
	B	Yablonskiy DA, Quantitation of intrinsic magnetic susceptibility-related effects in a tissue matrix. Phantom study. Magn. Reson. Med. 1998; 39: 417-428.					
	C	Boxerman JL, Weisskopf RM, and Rosen BR, Susceptibility effects in whole body experiments. In: Young IR, editor. Methods in biomedical magnetic resonance imaging and spectroscopy. New York: John Wiley & Sons; 2000. p 654-661.					
	D	Kreis R., Quantitative localized ¹ H MR spectroscopy for clinical use, J. Progr. in NMR Spectr. 1997; 31: 155-195					
	E	Garrod S, Humpfer E, Spraul M, Connor SC, Polley S, Connelly J, Lindon JC, Nicholson JK and Holmes E. High-resolution magic angle spinning ¹ H NMR spectroscopic studies on intact rat renal cortex and medulla. Magn Reson Med 1999; 41: 1108-1118.					
	F	Bollard ME, Garrod S, Holmes E, Lindon JC, Humpfer E, Spraul M and Nicholson JK. High-resolution ¹ H and ¹³ C magic angle spinning NMR spectroscopy of rat liver. Magn Reson Med 2000; 44: 201-207.					
	G	Andrew ER, Eades RG. Removal of dipolar broadening of NMR spectra of solids by specimen rotation. Nature 1959; 183: 1802.					
	H	Garroway AN. Magic-angle sample spinning of liquids. J Magn Reson 1982; 49: 168-171.					
	I	VanderHart DL. Magnetic susceptibility & high resolution NMR of liquids & solids. In: Grant DM and Harris RK, editors. Encyclopedia of nuclear magnetic resonance. New York: John Wiley & Sons; 1996. p 2938-2946.					
	J	Weybright P, Millis K, Campbell N, Cory DG, and Singer S, Gradient, high-resolution, magic angle spinning ¹ H nuclear magnetic resonance spectroscopy of intact cells, Magn. Reson. Med. 1998; 39: 337-345.					
	K	Chen J, Enloe BM, Fletcher CD, Cory DG, Singer S. Biochemical Analysis Using High-Resolution Magic Angle Spinning NMR Spectroscopy Distinguishes Lipoma-like Well-differentiated Liposarcoma from Normal Fat. J Am Chem Soc 2001; 123: 9200-9201.					
	L	Garrod S, Humpfer E, Connor SC, Connelly JC, Spraul M, Nicholson JK, and Holmes E. High-resolution ¹ H NMR and magic angle spinning NMR spectroscopy investigation of the biochemical effects of 2-bromoethanamine in intact renal and hepatic tissue. Magn Reson Med 2001; 45: 781-790.					
	M	Wind RA, Hu JZ, and Rommereim DN, High Resolution ¹ H NMR Spectroscopy in Organs and Tissues Using Slow Magic Angle Spinning, Magn. Reson. Med. 2001; 46: 213-218.					
	N	Hu JZ, Rommereim DN, and Wind RA, High Resolution ¹ H NMR Spectroscopy in Rat Liver Using Magic Angle Turning at a 1 Hz Spinning Rate, Magn. Reson. Med. 2002; 47: 829-836.					
	O	Hu JZ and Wind RA, The evaluation of different MAS techniques at low spinning rates in aqueous samples and in the presence of magnetic susceptibility gradients, J. Magn. Reson. 2002; 159: 92-100.					
	P	Oyama AJ, Response and adaptation of Beagle dogs to hypergravity, Life sciences and space research XIII: Proc. of the 17 th plenary meeting, Sao Paulo, Brazil 1974, Akademie-Verlag, Berlin, 1975. p. 11-17.					
EXAMINER				DATE CONSIDERED			
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							